



**State exam questions
Mechanical Engineering BSc
Automotive Production Process Control specialization**

Assembly technology and Automotive Quality Assurance

1. Analysis of assembly trees. Quantity assembly tree. Construction assembly tree. Building brick – type assembly tree. Combined assembly tree. Designing of computer aided assembly processes.
2. Solutions of assembly dimension chains. Total interchangeability method. Partial interchangeability method. Sorting – pairing method. Retrofitting method. Adjustment method.
3. The basis of the device designing. Position determinations by outside and inside planes. Centralization and orientation. Analysis of modern workpiece clamping devices.
4. Production of digital circuits. Analysis of surface mount technology (SMT). Analysis of through hole technology (THT). Wave soldering technology. REFLOW soldering technology.
5. The types of sliding bearings. The types of rolling bearings. The assembly methods of rolling bearings. The assembly of rolling bearings for shafts.
6. Describe the main point of the 8D document!
7. Describe the definitions of APQP and PPAP methods!
8. Describe the 7 basic tools of quality management!
9. Describe the definitions of audit, describe two examples!
10. Describe the 7+1 wastes, describe the effects of the wastes on the product quality!